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| APPLICATION NO.   | FILING DATE        | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|--------------------|----------------------|---------------------|------------------|
| 10/736,339  | 12/15/2003         | Rajesh K. Saini      | 2001-IP-005484U1P1  | 3700             |
| 71/407<br>ROBERT A. KENT<br>P.O. BOX 1431<br>DUNCAN, OK 73536 | 7590<br>11/14/2008 |                      |                     |                  |
| EXAMINER  |                    |                      |                     |                  |
| LIGHTFOOT, ELENA TSOY   |                    |                      |                     |                  |
| ART UNIT  |                    | PAPER NUMBER         |                     |                  |
| 1792  |                    |                      |                     |                  |
| NOTIFICATION DATE   |                    | DELIVERY MODE        |                     |                  |
| 11/14/2008  |                    | ELECTRONIC           |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/736,339

**Applicant(s)**

SAINI ET AL.

**Examiner**

Elena Tsoy Lightfoot

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 42-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 42-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date 9/16/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 2, 2008 has been entered.

***Response to Amendment***

Amendment filed on October 2, 2008 has been entered. Claims 7-19 have been cancelled. New claims 42-61 have been added. Claims 42-61 are pending in the application.

***Claim Objections***

1. Claim 59 is objected to because of the following informalities: "ply(...)" should be changed to "poly(...)". Appropriate correction is required.

***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 42-54 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7, 9-11, 13-17 of copending Application No. 11/046,043 in view of Murphey et al (US 4,829,100).

Application '043 disclose all claimed limitations except for coating gravel particles on-the-fly. However, Murphey et al teaches that particulate material utilized in the performance of gravel packing procedures or as a proppant material in fracturing treatments (See column 9, lines 62-68) can be coated rapidly and continuously by admixing in a stream (on-the-fly) (See column 2, lines 37-42) instead of batch mixing which requires a period of time, e.g., at least about 15 minutes to several hours to obtain satisfactory coating of the particulate material before the slurry may be introduced into a placement zone (See column 2, lines 17-23). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have coated gravel in Application '043 on-the-fly with the expectation of providing the desired rapid and continuous coating, as taught by Murphey et al.

This is a provisional obviousness-type double patenting rejection.

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 42-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (US 6,209,643) in view of Wang et al (US 6,458,867), further in view of Lee et al (US 6,817,414).

Nguyen et al discloses a method of introducing treatment chemicals and treating a subterranean formation comprising providing a fluid suspension including a mixture of particulate material such as gravel packing material (See column 8, lines 20-21) in said fluid suspension, a solution of a tackifying compound in a solvent (See column 5, lines 10-13) such as alcohol (See column 4, lines 55-56) and a treatment chemical whereby the treatment chemical is contacted by said tackifying compound and at least partially coated therewith whereby the tackifying compound retards release of said treatment chemical in said fluid suspension; and depositing the coated particulates in the subterranean formation whereby coated treatment chemical is subsequently released within the subterranean formation (i.e. the tackifying compound is *degradable*) to treat at the portion of formation in contact therewith (See column 12, lines 33-55). The tackifying compound includes *any* compound (See column 5, lines 11-12), e.g. a polyamide (See column 5, lines 21-23) or polyesters, polyethers and polycarbamates, polycarbonates, styrene-butadiene lattices, natural or synthetic resins such as shellac and the like (See column 6, lines 9-14); and the treatment chemical include biocides, corrosion inhibitors, gel breakers such as oxidizers, enzymes, etc. (See column 4, lines 40-42). The tackifying compound is admixed in an amount of 0.1-3.0 % by weight of the coated particles (See Example 1; column 9, line 65 to column 10, line 5). The Examiner takes official notice that it is a common

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knowledge in the art *polyester* or *polyamide* hydrolyze either through acid or base catalysis, to a carboxylic **acid** (i.e. claimed acid releasing degradable material), as evidenced by **Wang et al** (See column 8, line 66 to column 9, line 12).

Although Nguyen et al teaches the tackifying compound includes *any* compound that adheres to the particles and retards release of the treatment chemical, Nguyen et al fails to teach that the tackifying compound is *polylactide*.

Lee et al teaches that gravel having *coating* comprising chemicals that slowly hydrolyze and release an acidic by-product (See column 3, lines 6-15), e.g. lactic polymer (**claimed polylactide**)\* (See column 3, lines 20-28) can be used to degrade a filter cake (See column 2, lines 52-63).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used lactic polymer (claimed polylactide) as a tackifying compound in Nguyen et al with the expectation of providing the desired degradation a filter cake since Lee et al teach that chemicals that slowly hydrolyze and release an acidic by-product e.g. lactic polymer, are suitable to be used to degrade a filter cake, and Nguyen et al do not limit their teaching to particular tackifying compounds. Moreover, it is held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

As to claimed solvent of claim 12, obviously, one of ordinary skill in the art would use a conventional alcohol such as methanol and isopropanol as a solvent in Nguyen et al because Nguyen et al does not limit their teaching to particular alcohols.

As to claims 47 and 53, plasticizers were not addressed because they are *optional*.

As to claims 48 and 54, poly(orthoester) is not addressed because it is *optional*.

6. Claims 42-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al in view of Wang et al or Nguyen et al in view of Wang et al, further in view of Lee et al, as applied above, and further in view of McDougall et al (US 5,192,615).

The cited prior art fails to teach that the fluid suspension further comprises a plasticizer (Claims 42, 49, 55) such as starch (Claims 47, 53, 60).

McDougall et al teaches that generally a fracturing fluid comprises a viscous or gelled polymeric solution, a propping agent, a chemical breaker and other additives *commonly* used in fracturing fluids (See column 2, line 65 to column 3, line 1), e.g. fluid loss or wall building agents such as **starch**; friction-reducing agents such as small amounts of high molecular weight linear polymers such as polyacrylamide; surfactants or **alcohol** to reduce interfacial tension and the resistance to return flow (See column 8, lines 7-16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added starch to the fluid suspension of Nguyen et al with the expectation of providing the desired control of fluid loss since McDougall et al teaches that **starch** is an additive *commonly* used in fracturing fluids as a fluid loss or wall building agent.

#### ***Response to Arguments***

7. Applicant's arguments with respect to claims 7-19 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy Lightfoot whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy Lightfoot, Ph.D.  
Primary Examiner  
Art Unit 1792

November 12, 2008

/Elena Tsoy Lightfoot/